REMARKS

In the second Office Action, the Examiner objected to claims 17-18 and 20-21 for informalities. The Examiner rejected claims 1, 45, 37, 44, 50, and 53-54 under 35 U.S.C. § 112, second paragraph. The Examiner objected to an Amendment filed November 26, 1999 under 35 U.S.C. § 132 as introducing new matter. The Examiner rejected claims 1, 2-5, 9-10, 16-18, 20-21, 26-27, 31-35, 38-39, 45, 46-49, 53-55, 58-66, and 67-70 under 35 U.S.C. § 102(e) as being anticipated by Li et al. (U.S. Patent No. 6,012,088) and Egevang (RFC 1631 retrieved 4/27/99). The Examiner rejected the remaining claims under 35 U.S.C. § 103(a) based on combinations of Li, Egevang, and Perkins (U.S. Patent No. 5,412,654), Norris (U.S. Patent No. 5,557,748), Mayes (U.S. Patent No. 5,793,763), and Compliment (U.S. Patent No. 5,909,549).

Reconsideration and reexamination of the application as amended is respectfully requested.

A. Supplemental Amendment

The Examiner's Office Action indicates that it is in response to Amendment A filed on November 4, 1999. Applicants also filed a Supplemental Amendment via facsimile on December 2, 1999 amending the specification to include a statement regarding federally sponsored research or development.

The Examiner is respectfully requested to acknowledge that the Amendment filed December 2, 1999 has been received and entered.

B. Supplemental IDS

Applicants hand-filed a Supplemental Information Disclosure Statement and Form PTO-1449 with the Group Art Unit receptionist on the day of the personal interview, November 2, 1999. However, the most recent Office Action did not include the completed 1449. The Examiner is respectfully requested to acknowledge receipt of the IDS and 1449 and to return the completed copy to Applicants.

C. **Claim Objections**

The Examiner objected to claims 17-18 and 20-21 as including limitations redundant to claim 1. Applicants respectfully disagree and traverse the Examiner's objection.

As recognized by the Examiner, claim 1 includes first and second interfaces in communication with a processor. As described throughout the specification, for example on page 3, lines 11-12, the translator processor can be implemented as software and/or hardware. Claim 17 provides an additional limitation in that a hardware device incorporates the first and second interfaces and the processor. Claim 18 provides a further limitation that the hardware device is "attached to" the user device. As such, claims 17 and 18 are believed to be in proper form.

Similarly, claims 20 and 21 depend from claim 17 and specify further limitations with respect to the connections for the hardware device. As such, the Examiner is respectfully requested to withdraw the objection to claims 17-18 and 20-21 as these claims are believed to properly recite additional limitations and are not redundant with respect to claim 1.

D. **Rejections Under 35 U.S.C. § 112**

The Examiner rejected claims 1, 37, 44-45, 50, and 53-54 under 35 U.S.C. § 112, second paragraph. Applicants have amended these claims to obviate the Examiner's rejection.

With respect to claims 1 and 45, Applicants respectfully disagree with the Examiner's position with respect to "determining if the data transmitted from the user device is compatible with the foreign network." The claim is not indefinite under 35 U.S.C. § 112 merely because it has two possible results. As indicated in the Office Action, the Examiner understands what those two possible results are, and the consequences following therefrom. Applicants respectfully submit that those of ordinary skill in the art would also understand precisely the meaning of the language in claims 1 and 45. However, Applicants have amended these claims in an effort to advance the prosecution of this case toward allowance. Furthermore, Applicants believe these amendments put the claims in better form for appeal.

Claims 37, 44, 50, and 53-54 have been amended to obviate the Examiner's rejection.

E. **Objection Under 35 U.S.C. § 132**

The Examiner objected to the Amendment mailed November 4, 1999 under 35 U.S.C. § 132 as introducing new matter into the disclosure. Applicants respectfully disagree and traverse the Examiner's objection.

The Examiner indicated that "determining if the data transmitted from the user device is compatible with the foreign network" is new matter indicating that the specification disclosed that the translator always performed the translation. However, this is clearly not the case.

It is clear throughout the disclosure of the invention and in the drawings that the translator as disclosed and claimed selectively translates data based on the user device configuration and the current network configuration. For example, on page 3, lines 22-25 it is clear that the translator selects one of the interface devices. Likewise, on page 4, lines 20-32, the description indicates that the second module detects a data communication network location to which the terminal is connected and a fifth module which automatically selects a communication device detected by the third module for use by the fourth module. As disclosed on page 6, lines 5-9, the present invention determines which packets should be allowed to be transmitted between the mobile computer and the nomadic router or local area network. Additional support is provided on page 14, lines 17-23; page 16, lines 25-32; page 17, lines 5-11 ("configuration information on what types of translation need to be performed"); page 19, lines 3-6 ("so it knows what translation is necessary"); page 26, lines 25-32, etc. Support may also be found in drawing **Figures 2, 3, 4, 9a, 9b, and 10**, for example.

As such, it is clear from the disclosure that the present invention determines the kinds of translations necessary and performs translations based on a particular foreign network. As such, the present application determines if the data transmitted from the user device is compatible with the foreign network. The Examiner is respectfully requested to withdraw the objection under 35 U.S.C. § 132 with respect to claim 1.

The Examiner also objected to claims 58 and 67 as adding new matter. Applicants respectfully disagree and traverse the Examiner's objection. The Examiner is either misinterpreting the claims, or the disclosure, or both.

The Examiner relies on the disclosure at page 21, lines 1-6 as disclosing that if a DHCP server is not available, the translator will switch to another method to learn about the network configuration. While this is true, this applies only to the network learning function of the translator. However, claims 58 and 67 are directed to the DHCP service which is provided by the translator to the user device as described on page 20, lines 20-28.

As such, the disclosure clearly supports the limitations found in claims 58 and 67. The Examiner is respectfully requested to withdraw the objection under 35 U.S.C. § 132 with respect to these claims.

F. **Rejection Under 35 U.S.C. § 102**

The Examiner rejected a number of claims under 35 U.S.C. § 102(e) as being anticipated by Li and Egevang. Applicants respectfully disagree and traverse the Examiner's rejections.

While the Examiner indicated that Egevang was "used as an extrinsic evidence to show the primary reference contains an enabled disclosure," the Examiner proceeded to reject claims 2-5, 9-10, 46-49, and 53-54 based on Egevang. In addition, all of the rejections under 35 U.S.C. § 103 use Egevang as a primary reference. As apparently recognized by the Examiner, Egevang is not a proper prior art reference since the content of the document can only be established as of the date it was retrieved from the Internet, i.e. April 27, 1999. Applicants recognize that Egevang includes an internal date of May, 1994. However, there is no way to determine the content of the document as of that date. As such, it is believed the rejections based on Egevang are improper and should be withdrawn. However, even if the Examiner can establish Egevang as a prior art reference, or can cite another reference with a substantially similar disclosure, Applicants' claims are clearly distinguishable as described below.

With respect to claims 1, 17-18, 20-21, 26-27, 31-34, 45, and 63-66, the Examiner indicated that "Li discloses a translator (Fig. 6, 240) which comprises a plurality of interfaces for connecting to a user device and a foreign network (See col 3, lines 39-45)." To reject a claim under 35 U.S.C. § 102(e) the Examiner must provide a patent reference which discloses each and every limitation of each and every claim so rejected. Clearly these claims contain numerous limitations which are neither disclosed nor suggested by Li et al.

With respect to claim 1, Li does not disclose a processor which intercepts data from the second interface to determine network setting of the foreign network. Furthermore, Li does not disclose intercepting data from the first interface to determine network settings of the user device, determining if the data transmitted from the user device requires translation based on the foreign network settings, processing the data by modifying any data which requires translation for the foreign network, or transmitting the processed data to the foreign network via the second interface as claimed by Applicants. In contrast, Li et al. requires "a configuration server containing customer site specific configuration data, . . .". (col 3, lines 34-36.) As described in col. 9, lines 19-25 of Li, "Before the Internet access device configures itself, the customer and an Internet service provider communicate in order to determine an appropriate level of service for that customer and corresponding configuration information for the Internet access device." As such, Li requires manual configuration by the customer and the ISP. This information is stored in the configuration server which is then subsequently accessed by the Internet access device to obtain configuration data for a particular site.

Contrary to the Examiner's position, **Figure 2** of Li illustrates an embodiment of an IP network of an Internet service provider. There is no disclosure of "network address translation which configured to intercept transmitting packets from user device for determining the network setting of foreign network and user device to perform network address translation, since the address of user device and the address of foreign network are different" as claimed by the Examiner.

Similar to claim 1, numerous limitations found in independent claim 45 are not disclosed by Li. For example, Li does not disclose a storage medium having a computer program which implements the functionality of a translator by selectively performing data translation between a user device that is configured to be connected to a home network after automatically detecting network settings of a foreign network and determining that the user device configuration which requires data translation for communication over the foreign network. As stated above, Li requires the customer and ISP to manually determine the configuration settings. This is illustrated in **Figures 11a and 11b** of Li. As shown in **Figure 11b**, block 722 determines whether a configuration record exists in the configuration server for the particular customer account identifier. If this record has not been previously

established, block 734 displays an error message and terminates the call. As such, there is no disclosure of automatically detecting network settings of a foreign network to determine that the user device configuration requires data translation as disclosed and claimed by Applicants. Furthermore, there is no disclosure of a program which intercepts messages intended for a device on the home network and selectively translates data between the home network and foreign network configurations as disclosed and claimed by Applicants.

With respect to claim 63, Li does not disclose intercepting packets transmitted from the user device to determine whether the user device is properly configured for the network. As described above, Li requires the customer and ISP to manually configure the network settings and store them in a configuration server. In addition, Li does not disclose modifying packets transmitted from the user device only if the user device is not properly configured for the network as disclosed and claimed by Applicants.

With respect to claim 64, Li does not disclose a method for providing connectivity to a network which includes intercepting packets transmitted by a user device connected to the network which would otherwise be dropped by devices on the network due to an incompatible user device configuration as disclosed and claimed by Applicants.

Likewise with respect to claims 65 and 66, Li does not disclose intercepting packets transmitted by the user device connected to the second local area network to determine network settings of the user device. As described above, Li requires manual configuration of network settings by the customer and ISP which are then stored in the configuration server. As such, Li does not determine whether packets transmitted by the user device are compatible with the second local area network, or intercept data transmitted by the user device containing the incompatible private IP address as recited in claim 66.

As described above, Li is simply does not disclose numerous limitations of Applicants claims. Furthermore, Li is functionally incapable of performing the steps required by Applicants' invention to automatically configure a user to an unknown foreign network and therefore can not be a proper reference under 35 U.S.C. § 102.

1. **Egevang**

With respect to claims 2-5, 9-10, 46-49, and 53-54, the Examiner's rejection is clearly improper. The rejection under 35 U.S.C. § 102(e) is improper since Egevang is not

a U.S. patent. Furthermore, as described above, Egevang has not properly been established as prior art to Applicants' invention. For these reasons alone, the Examiner should withdraw the rejection.

To the extent the Examiner is rejecting these claims under 35 U.S.C. § 102(b), and to the extent that the disclosure of Egevang may be prior art to Applicants' invention, Applicants further traverse the rejection since Applicants' invention as claimed includes a number of limitations not disclosed in Egevang. With respect to claims 2-5 and 9-10, Egevang does not disclose a processor for intercepting data from the second interface to determine network settings of the foreign network. Egevang does not disclose determining if the data transmitted from the user device requires translation based on the foreign network settings.

With respect to claims 46-49, and 53-54, assuming the Examiner meant to reject these claims under 35 U.S.C. § 102(b), these claims also contain a number of limitations not disclosed by Egevang. In particular, these claims depend from claim 45 and do not disclose digital storage medium which implements the functionality of a translator by selectively performing data translation between a user device that is configured to be connected to a home network after automatically detecting network settings of a foreign network and determining that the user device configuration requires data translation for communication over the foreign network as disclosed and claimed by Applicants. As such, this rejection is improper and should be withdrawn.

With respect to claim 16, the Examiner recognizes that "Li fails to disclose the claimed invention." As such, any rejection under 35 U.S.C. § 102 is clearly improper and should be withdrawn. To the extent the Examiner bases the rejection on Egevang, Applicants' claim 16 incorporates the limitations of claim 1 which are not disclosed in either Li or Egevang.

With respect to claims 35 and 38-39, the Examiner has not indicated where Li or Egevang disclose the recited limitations. The Examiner claims that "it would have been explicit to one of ordinary skill in the art at the time of the invention was made to configure the processor to perform data protocol conversion, . . .". This is not a proper rejection under 35 U.S.C. § 102(e) and should be withdrawn. To the extent the Examiner is arguing that the limitations recited in claims 35 and 38-39 are obvious to one of ordinary skill in the art, Applicants respectfully disagree and traverse the Examiner's rejection. For the reasons stated

above, neither Li nor Egevang disclose numerous limitations found in Applicants' claim 1. Claims 35 and 38-39 depend directly from claim 1 and incorporate its limitations. The Examiner has not identified any motivation to combine these references, nor to extend them in the manner claimed by Applicants absent the impermissible use of hindsight. As such, this rejection should be withdrawn.

As stated in detail above, the Examiners rejections of these claims on the stated grounds of 35 U.S.C. § 102(e) is clearly improper since Egevang is not a U.S. patent. There is no basis for a rejection under any paragraph of 35 U.S.C. § 102 since the disclosure of Egevang, even if prior art, does not disclose each and every feature of the claims. There is no basis for a rejection under 35 U.S.C. § 103 because there is no teaching, suggestion, or motivation to modify the network address translation of Egevang to provide a translator as claimed by Applicants. As such Applicants' respectfully request the Examiner to withdraw Egevang as a reference along with all rejections based on Egevang.

2. Li

The Examiner's rejection of number claims under 35 U.S.C. § 102(e) should also be withdrawn. With respect to claims 43-44, Li lacks a number of limitations found in Applicants' claim 1. For a proper rejection under any paragraph of 35 U.S.C. § 102, the reference must disclose each and every limitation of each and every claim rejected. To the extent the Examiner relies on 35 U.S.C. § 103(a), the Examiner has not identified any motivation for one of ordinary skill in the art to modify the routing table disclosed by Li to meet Applicants' limitations. In addition to those limitations of claim 1, Li does not disclose a translator which stores a second address which corresponds to the first address where the second address is learned by the translator based on network settings of the foreign network. Li clearly addresses a different problem than that addressed by Applicants. Li does not address the mobility of users and changing communications settings when using a foreign network while being configured to use a home network. Rather, Li addresses the problem of initial configuration of a network to communicate with the Internet.

With respect to claims 55 and 69-70, numerous limitations of Applicants' claims are not disclosed by Li. As recited in claim 55, Applicants' invention requires connecting the user device to the foreign network. It is unclear what how the Examiner's is interpreting Li

to find a "foreign network" as recited in Applicants' claim 55. Li discloses only a "home" network to which the user device is connected. The Internet access device is then used to provide Internet access to the user device. Li also does not disclose intercepting packets transmitted from the user device which would otherwise be dropped by devices on the foreign network to determine network settings of the user device. As described above, Li requires manual configuration of the network and ISP settings by the customer and ISP. In addition, Li does not disclose intercepting packets transmitted by the user device to determine the static IP address. With respect to claim 70, Li does not disclose intercepting messages transmitted over the network without regard to message destination addresses and automatically determining network settings of the network based on addresses contained in the messages transmitted over the network. In contrast, Li requires manual configuration of the network settings by the customer and ISP prior to the "automatic" configuration of the Internet access device which essentially transmits the previously stored settings from the configuration server.

With respect to claims 67 and 68, Li does not disclose intercepting packets transmitted on the network to determine compatible network configuration settings. Furthermore, Li does not disclose intercepting packets transmitted by the user device to identify a DHCP request, determining that a DHCP server is unavailable, and replying to the DHCP request with compatible network configuration settings. As such, the rejection under 35 U.S.C. § 102(e) is improper and should be withdrawn.

With respect to claim 58, Li does not disclose intercepting packets transmitted from the user device which would otherwise be dropped by devices on the foreign network to determine network settings of the user device. Li also does not disclose using the determined network settings of the user device to determine whether to intercept subsequently transmitted packets, nor does Li disclose replying to a DHCP packet to provide configuration settings based on the foreign network configuration only if a DHCP server is determined to not be available on the foreign network. Again, it is unclear what the Examiner considers to be the "foreign network" in Li. However, even if the Examiner interprets the "foreign network" to be the Internet, contrary to the teachings of Applicants and the understanding of those having ordinary skill in the art, this clearly does not read on claim 58.

With respect to claims 59-62, these claims depend directly or indirectly from claim 55. Li does not disclose numerous limitations of claim 55 including intercepting packets

transmitted from the user device which would otherwise be dropped by devices on the foreign network to determine network settings of the user device as disclosed and claimed by Applicants. As such, the rejection under 35 U.S.C. § 102(e) is improper and should be withdrawn.

G. **Rejections Under 35 U.S.C. § 103**

The Examiner rejected claims 6-8, 11-15, 22-25, 36-37, 40-42, 50-52, 56-57, and 71 under 35 U.S.C. § 103(a) as being unpatentable over Li and Egevang in view of various other references. Applicants respectfully disagree and traverse the Examiner's rejections.

To the extent the Examiner relies on Egevang, the Examiner has not established Egevang as a proper prior art reference as described above. Because Egevang is relied upon as a primary reference in all the rejections under § 103, the rejections are all improper and should be withdrawn.

To the extent the Examiner relies on Li as a primary reference, numerous limitations in Applicants' independent claims are neither disclosed nor suggested by Li as described above. Those limitations are also not found in any of the secondary references relied upon by the Examiner. As such, even if the proposed combinations were proper, the combinations would fail to meet Applicants' claim limitations. Furthermore, the Examiner has failed to identify any teaching or motivation to combine the various references absent impermissible use of hindsight.

With respect to claim 36, neither Li nor Egevang disclose a translator which has a processor for intercepting data from the second interface to determine network settings of the foreign network. Likewise, Perkins (U.S. Patent No. 5,412,654) neither discloses nor suggests such a translator. Furthermore, the Examiner has not identified any motivation or teaching in the references to combine the alleged disclosed features. As is noted above and incorporated herein, several limitations cannot be found or suggested in any of the three references relied upon by the Examiner in rejecting this claim.

With respect to claims 6-8, 11-14, 37, 50-52, 56-57, and 71, Applicants traverse the Examiner's rejection. Norris (U.S. Patent No. 5,557,748) is similar to Li in that it requires manual configuration of network settings. As disclosed in col. 2, lines 32-35,

> if no matches are found between the current participants list and the existing participants lists, then the user is prompted to enter a new location. Although the user is require to enter network parameters for the new location, certain network parameters are determined from the indexed network traffic data. (Emphasis added.)

As such, while Norris discloses the use of a promiscuous mode to record various network transactions for a predetermined time period, there is no disclosure, teachings, or suggestion to intercept data from the first interface to determine network settings of the user device, determine if the data transmitted from the user device requires translation based on the foreign network settings, or processing the data by modifying any data which requires translation for the foreign network as disclosed and claimed by Applicants. Norris requires manual intervention from the user and therefore teaches away from Applicants' invention. Likewise, with respect to claim 45, neither Li, Egevang, or Norris, taken alone or in any permissible combination, disclose or suggest automatically detecting network settings of a foreign network in determining that the user device configuration requires data translation for communication over the foreign network. Furthermore, there is no disclosure or suggestion to intercept messages intended for a device on the home network and selectively translate data between the home network and foreign network configurations.

With respect to claim 55, the proposed combination, taken as a whole, does not teach or suggest intercepting packets transmitted from the user device which would otherwise be dropped by devices on the foreign network to determine network settings of the user device. In contrast, Norris teaches intercepting packets transmitted on the foreign network to recognize and/or select a network configuration which has previously been determined and manually configured by the user.

With respect to claim 71, the proposed combination of Li, Egevang, and Norris does not disclose replying to the ARP message by associating a media access control address of a device on the network with a destination address of the device on the home network as disclosed and claimed by Applicants. Furthermore, the proposed combination does not disclose automatically determining network settings of the network based on addresses contained in the messages translated over the network and modifying these messages transmitted by a user device based on the network settings of the network. The Examiner cites col. 10, lines 6-10 of Norris which states:

> The ARP and SAP commands are used to locate a variety of hardware mechanisms on the network. This permits the mobile computer to connect to a quiet network or a completely foreign network and still utilize resources on that network.

Contrary to the Examiner's position, the claimed method of claims 6, 8, 50, and 52 does not simply use ARP to resolve the network address. Rather, the present invention as disclosed and claimed "pretends" to be the device which the user device is looking for when it transmits an ARP packet. The present invention then "transmits a reply to the user device which includes a MAC address of the translator." As described in the specification, this feature of the present invention "tricks" the user device into sending future packets to the translator although the user device "thinks" it is sending the packets to a device on its home network. This is not simply the prior art ARP request as described in Norris, but a unique modification of the ARP reply which allows the present invention to function without prior information of the foreign network. The Examiner has not identified any teaching or suggestion in the art of record which would motivate one of ordinary skill in the art to reply

to an ARP request which is not directed to the device which is generating the reply as disclosed and claimed by Applicants.

Likewise with respect to claims 7, 11-14, 37, and 51, the combination proposed by the Examiner, when taken as a whole, lacks numerous limitations found in Applicants' invention as disclosed and claimed. For example, in claim 11, the processor is configured to automatically configure itself to the foreign network without prior knowledge of the foreign network configuration. As described above, neither Li nor Norris disclose or suggest this feature. In contrast, both Li and Norris require the user to determine network settings which are stored in a configuration file or on a configuration server. Upon subsequently attaching to the network or contacting the configuration server, settings which have been previously stored in the configuration file are used to configure the user device. As such, neither of these references discloses a translator which can configure itself without prior knowledge of the foreign network configuration. Claims 12-14 include additional limitations neither suggested nor disclosed by the proposed combination. However, these claims depend from claim 11 which depends from claim 1 and are not addressed further here.

With respect to claims 37 and 51, there is no disclosure nor suggestion in the proposed combination where the foreign network comprises first and second subnetworks, the user device and router are connected to the first subnetwork, and the processor is configured to appear as the second subnetwork to the user device and to appear as the user device to the second subnetwork as disclosed and claimed by Applicants. Again, while Norris may disclose the use of ARP, DHCP, and BOOTP, this disclosure does not meet Applicants' claimed limitations. Furthermore, there is no teaching or suggestion to modify these "standard" features as described by Applicants.

With respect to claims 22-25 and 40-42, neither Li, Egevang, nor Mayes (U.S. Patent No. 5,793,763) disclose or suggest a number of features of Applicants' invention. In particular, claims 22-25 depend directly or indirectly from claim 1 which is discussed in detail above and incorporated by reference here. With respect to claims 40-42, the Examiner acknowledges that the combination fails to disclose the claimed invention, but indicates that these features are well known in the art. Applicants respectfully disagree and traverse the Examiner's rejection with respect to the combination of such features as disclosed and claimed by Applicants being well known in the art. The Examiner has not identified any suggestion or motivation in the references relied upon to provide the features claimed in claims 40-42, including a translator which provides file synchronization, database synchronization among a plurality of user devices, or e-mail with file replication and reconciliation.

With respect to claim 15, the Examiner recognizes that Li fails to disclose the claimed method. The Examiner relies on Compliment (U.S. Patent No. 5,909,549) to teach a method of using SNMP. While SNMP may be well known in the art, Applicants' use of SNMP is neither disclosed nor suggested by the references relied upon by the Examiner. In particular, as recited in claim 15, which depends from claim 11 which depends from claim 1, the proposed combination does not disclose or suggest using SNMP packets transmitted over the foreign network to configure the translator.

H. Summary

Applicants have made a genuine effort to respond to each of the Examiner's objections and rejections in advancing the prosecution of this case. Applicants respectfully

request entry of the Amendment to the claims to place these claims in better condition for appeal.

As explained in detail in response to the Office Action, Applicants believe that many of the Examiner's rejections are procedurally and substantively improper and should be withdrawn. To the extent that such rejections are procedurally appropriate, Applicants' invention as disclosed and claimed is clearly distinguishable. As such, Applicants believe that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested.

No additional fee is believed to be due as a result of the filing of this paper. However, any additional fees or credits may be charged to deposit account 02-3978.

The Examiner is respectfully requested to telephone the undersigned to discuss resolution of any issues which may be required to place any particular claim or claims in condition for allowance.

Respectfully submitted,

JOEL E. SHORT et al.

By _____
David S. Bir
Reg. No. 38,383
Attorney/Agent for Applicants

Date: 2/29/00

BROOKS & KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075
Phone: 248-358-4400
Fax: 248-358-3351